



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,873	02/22/2002	Hiroki Nagai	388-020337	9910

7590 12/17/2003

Russell D. Orkin  
WEBB ZIESENHEIM LOGSDON ORKIN & HANSON, P.C.  
700 Koppers Building  
436 Seventh Avenue  
Pittsburgh, PA 15219-1818

EXAMINER

FISCHMANN, BRYAN R

ART UNIT	PAPER NUMBER
----------	--------------

3618

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/081,873

Applicant(s)

NAGAI ET AL.

Examiner

Bryan Fischmann

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11 and 14-24 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### ***Acknowledgments***

1. The Amendment and Drawing Corrections (paper 9) filed 10-09-2003 have been entered.

### ***Claim Objections***

2. Claim 13 is objected to due to the following:

The recitation of "...said rear end portion of said partition wall member being part of a lower surface of said partition wall member and extending rearwardly of said partition wall member..." is considered awkward and somewhat unclear. Note that as best understood, the above recitation is only referring to one component, namely the "partition wall member". However, the above recitation appears to be stating the relationship of mating parts.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 8-11 and 14-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imanishi, et al, US Patent 5,678,648, in view of Holm, et al, US Patent 4,969,533.

Art Unit: 3618

Imanishi teaches an engine enclosure for use on a vehicle having a cooling system for a vertical shaft type engine (E) with a cooling air intake fan (12) disposed above the engine, said engine enclosure comprising:

an upper hood (4A) for covering said engine from above, said upper hood having an upper surface and right and left side surfaces extending downward from said upper surface; and

a lower hood (4B) for covering lateral areas of said engine and;

a barrier wall (21 (vertical portion – see Figure 3)) to shield an interior of the engine enclosure.

Imanishi fails to teach a cooling air intake opening formed in a position above a lower end of at least one of said right and left side surfaces of said upper hood for taking in ambient air.

However, Holm teaches a cooling air intake opening (54) formed in a position above a lower end of at least one of the right and left side surfaces of an upper hood for taking in ambient air (Figure 11). An intake opening formed on a side surface of an upper hood is advantageous in that the intake opening is relatively high off the ground and forward of the mower unit, which will minimize grass and dust intake. An intake opening formed on a side surface of an upper hood is also advantageous in that it allows the intake velocity to be reduced when coupled with the intake openings of Imanishi, which may reduce noise.

Art Unit: 3618

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize an intake opening formed on a side surface of the upper hood of Imanishi, as taught by Holm.

Regarding the claim 1 recitation "...one of said cooling air intake openings is invisible to another of said cooling air intake openings, and vice versa...", note that the screen assembly (19), which likely becomes dirty while in use, will prevent visibility of one opening to another.

Regarding claims 2 and 17, see reference number 20 and Figures 2 and 3 of Imanishi.

Regarding claims 3 and 18, see reference number 21 (horizontal portion) of Imanishi.

Regarding claims 4, 5, 19 and 20, note that the partition wall member 21 (horizontal portion) of Imanishi forms, along with the upper hood, a relatively short length of "duct" for guiding ambient air.

Regarding claims 6 and 21, note hinge structure on Figure 2 of Imanishi.

Regarding claim 8, see reference number 21 (vertical portion) of Imanishi.

Regarding claims 9, 10, 22 and 23, see Figure 2 and 3 of Imanishi and Figure 1 of Holm.

Regarding claims 11 and 24, the partition wall member (horizontal portion of 21) is fixed to the side surfaces of the upper hood via the barrier wall member (vertical portion of 21). See Figure 3 of Imanishi.

Regarding claims 14 and 16, see Figure 3 of Imanishi.

***Allowable Subject Matter***

5. Claim 12 is allowed.
6. Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Applicant's Remarks (paper 9) and Examiner's Comments***

7. The Amendment (paper 9) resolved all specification and claim objections made on the first Office Action (paper 7).
8. The Drawing Corrections (paper 9) resolved all drawing objections made on the first Office Action.
9. The amendment has overcome the 112 1<sup>st</sup> paragraph rejection of claim 13. However, as noted in this Office Action (paper 10), the wording of claim 13 is still considered objectionable.
10. The amendment to the claims has overcome the 35 USC 102 rejection of claims 12 and 13 made in the first Office Action.
11. Applicant's arguments with respect to the 103 rejections made on the first Office Action in the "Remarks" section of the amendment have been considered, but are considered moot in view of the amendments to independent claim 1. However, since the same prior art is again utilized to reject claim 1 and claims depending from claim 1, a pertinent comment by Applicant regarding this art will be addressed as follows:

Applicant's remark - On page 13 of paper 9, the Applicant recites "...The Applicants respectfully submit that the Examiner appears to be confusing the partition

Art Unit: 3618

wall members (32, 40, 53 and 54) and the barrier walls (35, 55 and 60) of the present claims...the partition wall members restricts mixing of the ambient air drawn by a fan with the heat generated from the engine...On the other hand, the barrier wall acts as a shield member so that an interior of the engine enclosure becomes invisible through the cooling intake air opening...".

Examiner's response - The Examiner offers the following comment:

The Examiner appreciates the Applicant's explanation of the differences between the barrier and partition walls. However, it is not believed that the above differences are explicitly set forth in the claims.

For example, claim 1, as amended, recites "wherein at least one barrier wall is disposed near each of said cooling air intake openings, and between said cooling air intake openings, and so that one of said cooling air intake openings is invisible to another of said cooling air intake openings, and vice versa".

A careful reading of the above recitation from claim 1 would appear to require only that one air intake opening be "invisible" from another cooling air intake opening, but not necessarily that the cooling intake openings be "invisible" to each other only due to the presence of the barrier wall.

Note similarly that claim 15 recites "wherein at least one barrier wall is provided to said cooling air intake opening so as to shield an interior of the engine enclosure". Note that since the barrier wall (vertical portion of reference 21 of Imanishi) is between at least the vertical portions of the cooling air intake opening of Holm and some portion of the "interior" of the engine enclosure of Imanishi, that some portion of

Art Unit: 3618

the "interior" of the engine enclosure of Imanishi is "shielded" from light, rain, grass clippings, etc.

Regarding the partition wall, note that claim 3 recites "...a partition wall member disposed between each of said cooling air intake openings and said cooling air intake fan...". Note that the horizontal portion of reference number 21 of Imanishi is "between" each of the cooling air intake openings of Holm and the cooling air intake fan. Note also that claim 18 has a similar recitation.

### ***Conclusion***

12. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



Art Unit: 3618

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A) Hosonuma – teaches an air intake opening in a lawn tractor

B) Hinklin – teaches air intake openings in a hood of a lawn tractor


C) Smith – teaches what appears to be an air intake opening in a lawn mower hood

D) Kuwae – teaches what appears to be an air intake opening in a lawn mower hood

14. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bryan Fischmann whose telephone number is (703) 306-5955. The examiner can normally be reached on Monday through Friday from 7:30 to 4:00.

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor, Brian Johnson, can be reached on (703) 308-0885. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

 12-13-3  
BRYAN FISCHMANN  
PATENT EXAMINER